

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A composition to inhibit N-methyl-D-aspartate activity comprising:
an adeno-associated virus vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen operably linked to a promoter and capable of being expressed in a subject to elicit production of NMDA receptor-1 antibodies that inhibit NMDA activity, and
a pharmaceutically-acceptable carrier.
2. (Currently Amended) The composition of claim 1, wherein the produced antibodies bind to an NMDA-1 receptor in the central nervous system.
- 3.-9. (Canceled)
10. (Previously Presented) The composition of claim 1, wherein the composition is a preparation for oral administration.
11. (Currently Amended) A method comprising the step of administering an adeno-associated viral (AAV) vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen operably linked to a promoter and capable of being expressed in a mammalian subject to elicit production of NMDA receptor-1 antibodies, and a pharmaceutically-acceptable carrier to a subject prior to a neuronal insult, whereby the produced NMDA receptor-1 antibodies are capable of passing across a blood-brain barrier into a central nervous system following a the neuronal insult to inhibit NMDA activity.
12. (Currently Amended) A method comprising: administering a composition to a mammalian subject to inhibit N-methyl-D-aspartate activity comprising a composition comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen, and a pharmaceutically-acceptable carrier prior to a neuronal insult, wherein the antigen elicits the production of NMDA receptor-1 antibodies in a circulatory system of the subject

which bind to an NMDA receptor-1 in the central nervous system to ameliorate epilepsy or stroke in the mammalian subject.

13.-19. (Canceled)

20. (Previously Presented) The method of claim 12 wherein the method further comprises administering a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen operably linked to a promoter and capable of being expressed in the subject.

21. (Previously Presented) The method of claim 20, wherein the vector is a viral vector.

22. (Previously Presented) The method of claim 21, wherein the viral vector is selected from the group consisting of an adeno-associated virus vector, an adenovirus vector, a herpes virus vector, a parvovirus vector, and a lentivirus vector.

23. (Previously Presented) The method of claim 22, wherein the viral vector is an adeno-associated virus vector.

24. (Previously Presented) The method of claim 12, wherein the composition further comprises a colloidal dispersion system.

25. (Previously Presented) The method of claim 12, wherein the composition further comprises an injectable particle coated with the nucleic acid sequence.

26. (Previously Presented) The method of claim 12, wherein the composition is a preparation for oral administration.

27. (Previously Presented) The method of claim 12, wherein the composition is a preparation for intravenous injection.

28. (Previously Presented) The method of claim 12, wherein the composition is a preparation for intramuscular injection.